

CLAIMS

What is claimed is:

1. A flavor processing and absorption system for treating a process stream comprising at least one evaporator, at least one process oil kettle, at least one flavor vapor absorption vessel, at least one process oil collection vessel, said system maintained under continuous vacuum, said system further comprising a plurality of valves for adjusting the conditions of the system, said system further comprising pressurized air flowing into said evaporator in a direction counter to the flow of a process stream through said system.
2. The invention according to claim 1 further comprising a gas diffusion device positioned inside said flavor vapor absorption vessel.
3. The invention according to claim 2, said gas diffusion device comprising a perforated ball positioned at a terminal end of an inlet line feeding said absorption vessel.
4. The invention according to claim 3 said gas diffusion device further comprising at least one perforated discs oriented horizontally in said absorption vessel.
5. The invention according to claim 1 said process stream comprising an oil.
6. The invention according to claim 5, said oil selected from the group consisting of kosher or unkosher, processed or unprocessed vegetable oils, vegetable fats, animal oils and animal fats.
7. A process for manufacturing grilled, charcoal broiled, charcoal grilled or wood-fired flavorings comprising the steps of:
 - heating edible, food grade oils or fats to temperatures between about 290°C and about 475°C under vacuum, in the presence of oxygen;
 - removing vapor generated by said heating from said heated oils and fats; and
 - recovering said vapor in an absorption liquid.

8. The invention according to claim 7 said removal comprising the step of applying a vacuum during the process in which simultaneously the oxygen in the form of filtered pressurized air purges through the process equipment.
9. The invention according to claim 7 comprising drawing said vapor into said absorption vessel turbulently.
10. The invention according to claim 9, said turbulent drawing comprising drawing said vapor through a perforated ball situated in said absorption liquid.
11. The invention according to claim 9 further comprising the step of diffusing said turbulence to permit said vapors to be absorbed in said liquid.
12. The invention according to claim 11 comprising employing at least one disc horizontally oriented in said absorption liquid to diffuse said turbulence.
13. The invention according to claim 8 comprising selectively adjusting the flow rate and/or pressure of said pressurized air to vary the flavor characteristics of the flavor vapors.
14. The invention according to claim 13 comprising preadjusting air pressure, air flow rate and vacuum in a system performing said process prior to processing.
15. The invention according to claim 7 comprising preheating process oil in a process oil kettle;
introducing said preheated oil into a preheated evaporator; and
dispersing said oil onto the surface of a wall of said evaporator to develop flavor vapors.
16. The invention according to claim 7 further comprising oxidizing said flavor vapors in said evaporator.

17. The invention according to claim 7 further comprising the step of recovering the heated oils or fats and subjecting same to reheating at least once.

18. The invention according to claim 7 comprising the further step of recovering said absorption liquid.

19. A grilled, charcoal broiled, charcoal grilled or wood-fired flavoring produced by a process comprising the steps of:

heating edible, food grade oils or fats to temperatures between about 290°C and about 475°C under vacuum, in the presence of oxygen;

removing vapor generated by said heating from said heated oils and fats;

recovering said vapor in an absorption liquid; and

recovering said absorption liquid.

20. The invention according to claim 20, further comprising the step of spray-drying said recovered absorption liquid.